

**AMENDMENTS TO THE CLAIMS**

1-22. (Canceled)

23. (Previously presented) A transmitter, said transmitter comprising:  
(a) an output stage that generates a monocycle pulse;  
(b) a filter that spectrally modifies the monocycle pulse to create a spectrally modified ultra wideband signal having more zero crossings than the monocycle pulse in the time domain; and  
(c) an antenna coupled to said filter that radiates said spectrally modified ultra wideband signal.

24. (Canceled)

25. (Previously presented) The transmitter of claim 23, wherein said filter is a bandpass filter.

26. (Canceled)

27. (Previously presented) The transmitter of claim 23, wherein said output stage generates said monocycle pulse based upon a trigger signal.

28. (Canceled)

29. (Canceled)

30. (Previously presented) The transmitter of claim 27, wherein said trigger signal is based on at least one of an information signal, a code signal, and a subcarrier signal.

31. (Previously presented) A method of transmitting, comprising:
  - (a) generating a monocycle pulse;
  - (b) spectrally modifying the monocycle pulse to create a spectrally modified ultra wideband signal having more zero crossings than the monocycle pulse in the time domain; and
  - (c) radiating the spectrally modified ultra wideband signal.
32. (Canceled)
33. (Previously presented) The method of claim 31, wherein a filter is used to spectrally modify the monocycle pulse.
34. (Previously presented) The method of claim 33, wherein said filter is a bandpass filter.
35. (Canceled)
36. (Previously presented) The method of claim 31, wherein said generating the monocycle pulse is based on a trigger signal.
37. (Canceled)
38. (Canceled)
39. (Currently amended) The method of claim 36, wherein said trigger signal is ~~a~~ based on at least one of an information signal, a code signal, and a subcarrier signal.
40. (Previously presented) A method of transmitting, comprising:
  - (a) generating a monocycle pulse;

- (b) filtering the monocycle pulse to create a filtered ultra wideband signal having more zero crossings than the monocycle pulse in the time domain; and
- (c) radiating the filtered ultra wideband signal.

41. (Previously presented) The method of claim 40, wherein said filtering is by a bandpass filter.

42. (Previously presented) The method of claim 40, wherein said generating the monocycle pulse is based on a trigger signal.